

Roland®

MUSIC PLAYER

MT-90U

HANDBOOK



MT-90U - the perfect partner for music lessons

The new MT-90U Music Player is a must have companion for musical instrument and vocal lessons.

It's compatible with music data (Standard MIDI Files) and audio data (WAV, MP3, CD audio), and offers high-quality playback of all file types.

The MT-90U's built-in functions for practicing are ideal for music classrooms, rehearsal studios, and homes.



In rehearsal studios...



At home...



In musical classrooms...

For piano lessons and practice



With the Tempo Change feature, you can slow down the playback speed to suit your comfort level. The A-B Repeat feature allows intensive practice by repeatedly playing back a specific section over and over. Together with music teachers, MT-90U helps advance skills rapidly.

For all instrumentalists



Not just for piano, the MT-90U is a great partner for any instrument. Its portable size lets you enjoy lessons and practice sessions anywhere. The optional footswitch allows you to operate MT-90U by foot — great when both hands are occupied while playing.

Practice specific ensemble parts



Let's practice ensemble songs using SMF playback. This allows you to solo or mute any part (minus-one style) so you can enjoy practicing along with the accompaniment tracks, just like being in a band.

For karaoke parties



Let's sing with MT-90U as it plays SMF music + lyric display. You can connect a microphone to the MT-90U, which can also display song lyrics on its LCD.

For vocal lessons and practice



"Minus-One" playback of SMF music data allows vocalists to feel as if they are singing with a band. A microphone can be plugged into MT-90U with a voice-enhancing reverb effect added to the vocal. Key signatures of songs can even be transposed for comfortably suiting the singer's vocal range.

As the lead instrumentalist of an ensemble



Play a song from audio CD with the MT-90U's Center Cancel activated. You can play along with the ensemble as the lead instrument player.

As a background-music player



The MT-90U is a versatile multi-format music player. It can play MP3, wav, and even audio-CD tracks (with optional CD drive). It's perfect as a background music player at parties, etc.

For language lessons



For enhanced learning, you can record language lessons with EDIROL's R-09HR recorder (optional). Connect the R-09HR to the MT-90U via USB, and use the MT-90U's Tempo Change feature to slow the pace of the dialog. You can also use the A-B Repeat feature to loop specific phrases for memorization.

Key Features

The MT-90U accepts music files in a variety of formats

Load and play music files in a variety of formats, including Standard MIDI Files and audio data (MP3, WAV, CD audio*).

Download music data and lesson material from the Internet to your computer, and easily transfer the files to the MT-90U with a USB memory key (optional). An optional USB Floppy disk drive unit allows you to load SMF music data saved on floppy disks.



▲ USB Flash Memory M-UF1G(optional)



▲ Floppy Disk Drive FD-01A(optional)

* Optional CD-01A required for CD audio playback.

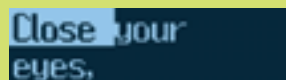
Music playback with natural, high-quality sound

The MT-90U has 348 realistic MIDI instruments onboard. These great sounds let you enjoy SMF music-data playback with stunning realism. The MT-90U's compact body fits well on top of most pianos and keyboards. It's lightweight (just 2.5kg) and easy to carry. The onboard powered speaker provides instant and convenient monitoring.



Easy, intuitive operation

Operating the MT-90U is easy thanks to its clean, clear panel layout and easy-to-read LCD. The MT-90U's user interface is similar to the previous model (MT-90S), making it easy for those who upgrade. A remote controller (included) lets you start and stop playback and adjust the volume remotely. By connecting a footswitch (optional), you can enjoy hands-free control of start / stop when your hands are occupied during performance.



▲ Remote Controller

Piano lessons are more fun and effective with music data Music Data

Get on the fast track to piano-skill development with music data enhancement. Explore new forms of single-hand practice (e.g. play right-hand parts along with left-hand accompaniment, or vice versa). Continuously loop specific sections of songs to overcome weak spots. You can also change tempo from slow to fast as you progress. Practice piano with built-in orchestral accompaniment.



What is music data?

Music data comprises the pitch, length, and strength of each note in a song, and more. MT-90U's onboard music player plays the music precisely according to the music data you select. Audio data differs from music (MIDI) data in that it's actual recordings of audio waveforms. With music data, you can do things that are difficult or impossible to do with audio. You can mute, solo, or change the instrumentation a song, for example, or instantly change the key or tempo. It's great for vocal or instrument lessons. SMF (Standard MIDI File) is the most popular standard file format of music data.

Audio data adds another exciting element to lessons and performance. Audio Data

In addition to music data, MT-90U is compatible with audio data such as WAV and MP3 so students can practice piano with their favorite songs. MT-90U provides convenient functions such as Key Transpose, Tempo Change, and Center Cancel for audio data. Change the tempo of a song without affecting its pitch. Audio CDs can be played back on the MT-90U by connecting an optional USB CD drive CD-01A. The Center Cancel* feature lets you mute the principal part of an ensemble, letting you simulate the feeling of playing along with the band.



▲ USB CD Drive CD-01A(optional)

*Depending on the source material, you may not be able to mute the principal part completely.

What is audio data?

Audio data is recorded audio waveforms, such as vocals, acoustic guitars, etc. Recordings on audio CD are also categorized as audio data.

Playing piano with a full backing ensemble makes practice more fun. Audio Data Music Data

At piano-student concerts, for example, it can be more exciting to have students play with a music-data backing ensemble. The MT-90U's Center Cancel feature lets you enjoy karaoke with your favorite audio CDs. With the MT-90U, the creative applications for performances and lessons are vast.

*Depending on the source material, you may not be able to mute the principal part completely.

Get ready for the lesson. Let's select a song.

Loop parts of a song repeatedly

Let's play in a slower tempo

Let's activate the metronome function

Let's play just backing ensemble (with Center Cancel)

Let's play

Let's plug-in the USB memory key, USB CD drive, etc.

Mark the positions where you want to practice intensively

Change the key of a song

Select a song

Options

- USB Flash Memory M-UF1G
- Floppy Disk Drive FD-01A
- CD Drive CD-01A
- Dynamic Microphone DR-30
- Pedal Switch DP-2
- 24bit 96kHz WAVE/MP3 RECORDER R-09HR

Find a song from the music-data library

From the Internet



- Access your favorite download site for music data
- Select and buy a song, then download it



- Copy the music data from computer to USB memory key



- Plug the USB memory key into the USB port on the MT-90U's front panel
- Press the button, then select a song using the .

Load a song from floppy disk



- Connect a USB cable from the USB floppy disk drive to the USB port on the MT-90U's front panel



- Insert a floppy disk (containing the music data) into the slot of the floppy disk drive



- Press the button, then select a song using the .

From the VIMA TUNES[®] library



- Connect a CD drive to MT-90U



- Insert the VIMA TUNES CD-ROM into the CD drive



- Press the button, then select a song using the .

See page 8-9 for info on how to use music data in the lessons

Find a song from the audio-data library

From the Internet



- Save an audio file from Internet download site to your computer's hard drive



- Transfer the audio data from computer hard drive to the USB memory key



- Plug the USB memory key into the USB port on the MT-90U's front panel
- Press the button, then select a song using the .

Select a song from audio CD



- Connect the CD drive to the MT-90U



- Insert the audio CD into the CD drive



- Press the button, then select a song using the .

Select a song from the R-09HR Recorder



- Let's record songs using the Ediol R-09HR



- Connect the R-09HR to the MT-90U using the USB cable (included with the R-09HR)



- Press the button, then select a song using the .

See page 10-11 for info on how to utilize audio data in the lessons

* When you connect USB memory, USB FDD, or USB CD, you must first power down and restart the MT-90U.

Let's experience lessons with SMF music data



● For piano lessons / practice sessions

1 Understand and memorize the song by listening repeatedly

- Press the button and select a song with the buttons
- Press the button and listen to the song
- Press the button followed by the button to listen to the selected song repeatedly

2 Right-hand practice: Play the right-hand part while listening to the left

- Press the Track buttons and mute every part except for the right-hand part (muted parts will not be lit)
- Press the button; only the selected track (lit) will play back. Play the right-hand part along with the guide it plays.



3 Play at a slow tempo first, gradually speed up

- Press button and decrease the tempo with the button
- When you master the song, increase the tempo gradually with the key



4 Left-hand practice: Play the left-hand part while listening to the right

- Now play the left-hand part while listening to the right-hand part as it plays back

5 Practice a difficult section of a song by looping it

- Press the button, then move to the location you want to mark with the buttons
- Insert Marker A and Marker B with the buttons
- By setting Marker A and Marker B locate points, you can jump to either point immediately or you can play the region between the two points repeatedly



6 Let's master perfect timing using the metronome

- Press the button and activate the metronome
- The onboard metronome plays the correct tempo automatically according to the selected Standard MIDI File



7 Play the piano with orchestral backing ensemble

- Choose a piano etude-type Standard MIDI File with orchestral backing
- Keep pressing the button and press the button
- You can choose which parts to play or mute using button and buttons
- Play the music data with the piano part muted. Let's play the piano part on top of the orchestral backing.



● For vocal training

1 Understand and memorize the song by listening repeatedly

- Press the button and select a song using the buttons
- Press the button and listen the song
- Press the button, then press the button to listen to the selected song repeatedly

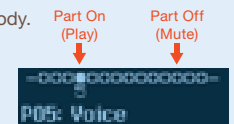
2 Listen to the song while reading the lyrics

- You can listen to the song while following the lyrics on the display (SMF with lyrics or VIMA TUNES)



3 Connect a microphone and practice your vocal parts by singing along with the music-data guide melody

- Plug a microphone into the Mic In jack on the rear panel
- Adjust the microphone's volume using the Mic Volume knob
- Keep pressing the button and press the button
- Use buttons & to select a part. Find the parts that is playing the melody. (Depending on the SMF, more than one part may be playing the melody.)
- Press button to set the parts off (mute).
- Play the music data and sing along with the guide melody



4 Sing in your favorite key with voice-enhancing echo

- Keep pressing the button and press the button
- Change the key with buttons. Let's sing!
- You can adjust the amount of echo with the Mic Echo knob

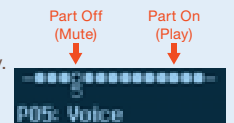


5 Practice a difficult section of a song by looping it

- Press the button, then move to the location you want to mark with the buttons
- Insert Marker A and Marker B with the buttons
- By setting Marker A and Marker B locate points, you can jump to either point immediately or you can play the region between the two points repeatedly

6 This time, mute the music-data melody guide and sing along with the backing tracks, karaoke-style

- Keep pressing the button and press the button
- Use buttons & to select a part. Find the parts that is playing the melody. (Depending on the SMF, more than one part may be playing the melody.)
- Press button to set the melody part off (mute).
- Play the music data with the melody guide muted. Let's sing along with the music-data backing tracks



Let's experience lessons with audio data



● When practicing instruments such as flute, violin, accordion, etc.

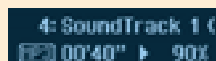


1 Understand and memorize the song by listening repeatedly

- Press the button and select a song using buttons
- Press the button and listen to the song
- Press the button; press the button to play the song you've selected repeatedly

2 Play at a slow tempo first, gradually speed up

- To get comfortable with the song, practice the main part at a slow tempo and sing along with the audio data
- Press button and decrease the tempo with the button
- When you master the song, increase the tempo gradually with the key



3 Play an audio file with Center Cancel

- Press button and activate the Center Cancel function
- The volume of the lead part of the ensemble becomes low, so you can play the lead part over the top of the ensemble

4 Practice a difficult section of a song by looping it

- Press the button, then move to the location you want to mark with the buttons
- Insert Marker A and Marker B with the buttons
- By setting Marker A and Marker B locate points, you can jump to either point immediately or you can play the region between the two points repeatedly

● For vocal lessons / training



1 Understand and memorize the song by listening repeatedly

- Press the button and select a song using the buttons
- Press the button and listen to the song
- Press the button, then press the button to listen to the selected song repeatedly

2 Connect a microphone and practice vocal parts by singing along with the music-data guide melody

- Plug a microphone into the Mic In jack on the rear panel
- Adjust the microphone's volume using the Mic Volume knob
- Play the music data with the melody guide muted. Let's sing along with the music-data backing tracks

3 Sing in your favorite key with voice-enhancing echo

- Press the button repeatedly, then press the button
- Change the key with buttons. Let's sing!
- You can adjust the amount of echo with the Mic Echo knob

4 Practice a difficult section of a song by looping it

- Press the button, then move to the location you want to mark with the buttons
- Insert Marker A and Marker B with the buttons
- By setting Marker A and Marker B locate points, you can jump to either point immediately or you can play the region between the two points repeatedly

5 Play an audio file with Center Cancel

- Press the button and activate the Center Cancel function
- The volume of the lead part of the ensemble becomes low, so you can sing the lead part over the top of the ensemble



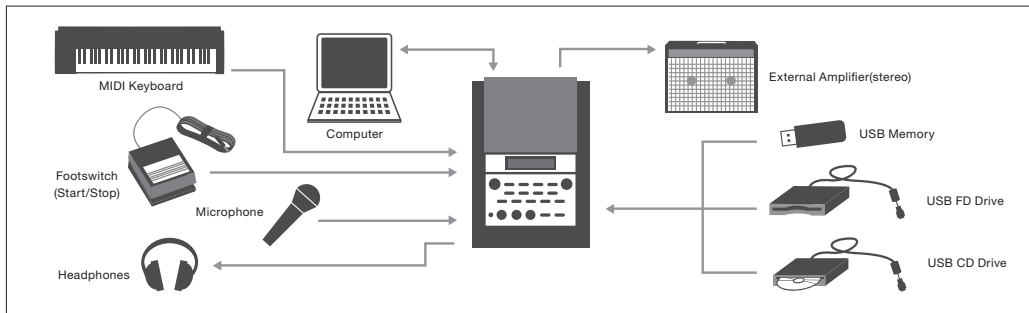
Music Data vs Audio Data Comparison

| | Music Data | Audio Data |
|------------------|--|---|
| Playable Data | Standard MIDI Files (format 0/1), Roland Digital Piano original format (i-format), VIMA TUNES* | Audio Files (WAV; 44.1kHz, 16-bit Linear format, MP3; 44.1kHz 128-320kbps), Audio CD (USB CD Drive CD-01A required) |
| Transpose | Yes | Yes |
| Tempo Change | Yes | Yes |
| Center Cancel | No | Yes** |
| Mute / Minus-one | Yes | No |
| Tuning | Yes | No |
| Count-In | Yes | No |
| Metronome | Yes | No |
| Mark | Yes | Yes |
| Reverb | Yes | No |
| Lyrics Display | Yes** | No |

*1 For some songs, the vocal sound may not be eliminated completely.

**2 SMF with Lyrics, VIMA TUNES

Setup Example



Specifications

<Playback Composer> • **External Memory** USB Memory (sold separately), Floppy Disk * Read only * USB 3.5 in. floppy disk drive (FD-01A) required (sold separately), CD-ROM, Audio CD * Read only * USB CD drive (CD-01A) required (sold separately) • **Supported Data** Standard MIDI Files (format 0/1), Roland Original Format, Audio files (WAV; 44.1 kHz, 16bit linear format, MP3; 44.1 kHz, 128 to 320 kbps), Audio CD * USB CD drive (CD-01A) required • **Tracks** 16 tracks • **Control** Reset, Stop, Play, Bwd, Fwd, Repeat, Marker, Song, Tempo, [+], [-], Track Selection, Count In, Metronome (MIDI only), Center Cancel (audio only) • **Tempo** Quarter note = 10 to 500 (MIDI only), 75 to 125% (audio only) • **Resolution** 120 ticks per quarter note (MIDI only) • **Transpose** Transpose: -6 to +5 (semitones) • **Demo Songs** 14 songs • **<Sound Generator>** • **Max. Polyphony** 128 voices (MIDI only) • **Tones** 348 tones (including 8 drum sets, 1 effects set) • **Internal Sounds** Conforms to GM2 system/GS format/XGlite supported • **Master Tuning** 415.3 Hz - 466.2 Hz (0.1 Hz units) • **Effects** Reverb (MIDI only), Chorus (MIDI only), Sound Control: Sharp, Clear, Power • **<Sequencer>** • **Metronome** Time Signatures: 2/2, 0/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8, 9/8, 12/8, Volume: 11 levels, Pattern: 11 patterns • **<Other Functions>** Infrared Transmission, Mic Echo, Song List, Floppy Disk Backup • **<Others>** • **Display** Beat Indicator, 122 x 32 dot Graphic LCD (with backlight) • **Language** Japanese (song title, lyrics), English • **Lyric Display** Yes (LCD display) • **Controls** Volume, Mic volume, Mic echo, Speaker switch • **Rated Power Output** 5 W • **Speakers** 10 cm x 1 • **Connectors** External memory connector: USB type A, USB connector: USB type B, Output jack (R/L): RCA pin type, Microphone jack (Mono): Standard type Headphones jack: Stereo, mini type MIDI In connector Start/Stop jack • **Power Supply** DC 9 V: AC adaptor • **Current Draw** 2000 mA • **Measurements** 165 (W) x 186 (D) x 270 (H) mm 6-1/2 (W) x 7-3/8 (D) x 10-11/16 (H) inches • **Weight** 2.5 Kg / 5 lbs. 9 oz. • **Accessories** Owner's manual, Power cord, AC adaptor, Remote control, Lithium battery (CR2025) • **Options (sold separately)** USB Memory (M-UF1G), Floppy Disk Drive (FD-01A), CD Drive (CD-01A), Roland Microphone (DR-10/20/30), Pedal Switch (DP-2)

* In the interest of product improvement, the specifications and/ or appearance of this unit are subject to change without prior notice.

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